

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Final Office Action dated April 20, 2007, has been received and its contents carefully reviewed.

Claims 1-6 and 8-35 are rejected by the Examiner. With this response, claims 1-6, 10, 23-25, 34 and 35 have been amended. Claims 1-6 and 8-35 remain pending in this application.

In the Office Action, claims 1, 2, 4, 6, 8-13, 18-22, 25, 26, and 33-35 are rejected under 35 U.S.C. § 102 (b) as being anticipated by U.S. Patent No. 4,607,147 to Ono et. al. (hereinafter “Ono”). Claims 3, 5, 14-17, 23, 24, 27, 28, 31, and 32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ono in view of U.S. Patent No. 5,777,275 to Mizutani (hereinafter “Mizutani”).

The rejection of claims 1, 2, 4, 6, 8-13, 18-22, 25, 26, and 33-35 under 35 U.S.C. § 102(b) as being anticipated by Ono is respectfully traversed and reconsideration is requested.

Independent claim 1 recites a flexible printed circuit film for connecting external circuits, having a combination of features including, for example, “a second pad provided at an end of the body opposite the one end of the body to be engaged to a connector of a second printed circuit board and electrically connected to the first pad; and at least one force absorbing edge recess defined in the body that absorbs a force transferred from the second pad, the force applied to engage the second pad to the connector.”

Applicants respectfully disagree with the Examiner’s conclusion that Ono discloses a “and at least one force absorbing edge recess defined in the body that absorbs a force transferred from the second pad, the force applied to engage the second pad to the connector.” In rejecting claim 1, the Examiner identifies item 14 of FIG. 3 as “a second pad provided at the other end of the body.” and identifies a feature near reference character 20 as “and least one force absorbing edge recess (near reference character 20) defined in the body.”

With regard to item 14 of FIG. 3, Applicants submit that Ono describes a membrane switch (See Ono Abstract), and describes feature 14 as follows:

“Also, as shown in FIG. 2, the plane shape of the electrode 14 is substantially quadrangular, the electrode 14 of the lower electrode section 10 has a horizontal stripe-pattern, and the electrode 14 of the upper electrode section 11 has a vertical stripe-pattern, so that when the corresponding upper and lower electrodes 14 come into contact together, the stripes of the patterns cross one another. As a result of such an arrangement as above, the contact between the upper and lower electrodes 14 is maintained reliably and, moreover, the amounts of silver and carbon to be used can be reduced remarkably.”

Applicants submit that items 14 are electrodes of switches of a membrane switch. The Examiner does not explicitly identify how item 14 is “to be engaged to a connector of a second printed circuit” as recited claim 1. However, Applicants submit that Ono does not disclose at least “and at least one force absorbing edge recess defined in the body that absorbs a force transferred from the second pad, the force applied to engage the second pad to the connector.” For example, if the “force applied to engage the second pad to the connector” is the force to actuate a membrane switch including electrode 14, neither of the features 19 or 20 disclosed in Ono, and identified by the Examiner as recesses, are positioned or configured as “one force absorbing edge recess defined in the body that absorbs a force transferred from the second pad, the force applied to engage the second pad to the connector” as recited in claim 1.

In addition, applicants submit that Ono describes features 20 and 18 as “narrow coupling sections between both ends of a fold” and the function of through hole 19 as to prevent “generation of cracks”. See Ono column 3, lines 28-36. According, Applicants submit that neither 19 and 20 constitute “force absorbing edge recess defined in the body that absorbs a force transferred from the second pad, the force applied to engage the second pad to the connector” as recited in claim 1 for at least this additional reason.

Accordingly, Applicants submit that Ono does not anticipate claim 1, and claims 2, 4, 6, 8, 9, 22, and 25 depending from claim 1 for at least the reasons given above.

Independent claim 10 recites a flexible printed circuit film for connecting external circuits having a combination of features including, for example, “a second pad at an end of the second portion away from inner vertex and the outer vertex and electrically connected to the first pad, wherein the second pad is to engage a connector to connect to circuit external to the body; and a first force absorbing recess in the body that absorbs a force transferred from the second pad, the first force applied to engage the second pad to connector.”

In rejecting claim 10, the Examiner identifies item 14 of Ono as “a second pad (14) connected at an end of the second portion and electrically connected to the first pad” and item 19 as “a first force absorbing recess (19) in the body that absorbs a force transferred from the second pad.” Applicants submit that Ono including the portions cited by the Examiner does not disclose “a first force absorbing recess in the body that absorbs a force transferred from the second pad, the first force applied to engage the second pad to the connector” for reasons similar to those given for claim 1. Accordingly, Applicants submit that claim 10, and claims 11-13, 18-21, 26, and 33 depending from claim 10 are not anticipated by Ono for at least this reason.

Independent claim 34 recites a printed circuit film for connecting external circuits having a combination of features including “at least one force absorbing recess portion in the body that absorbs a force transferred from the second pad, the force applied to engage the second pad to an external circuit.” Applicants submit that Ono does not disclose at least “at least one force absorbing recess portion in the body that absorbs a force transferred from the second pad, the force applied to engage the second pad to an external circuit.” Accordingly, Applicants submit that claim 34, and claim 35 depending from claim 34 are each allowable over Ono.

The rejection of claims 3, 5, 14-17, 23, 24, 27, 28, 31, and 32 under 35 U.S.C. § 103(a) as being unpatentable over Ono in view of Mizutani is respectfully traversed and reconsideration is requested. Applicants submit that Ono and Mizutani, analyzed singly or in combination, do not teach or suggest the combined features of the claims.

Applicants first note that claims 3, 5, 23, and 24 each depend from claim 1, while claims 14-17, 27, 28, 31, and 32 each depend from claim 10, and that each dependent claim includes by reference all of the limitations from their respective base claims.

As Applicants have discussed above, Ono does not anticipate claims 1 and 10. In rejecting dependent claims 3, 5, 14-17, 23, 24, 27, 28, 31, and 32, the Examiner cites Mizutani as teaching recesses of various shapes for “reducing bending strain” as curing deficiencies in the teachings of Ono with respect to elements explicitly recited in the dependent claims. Applicants do not reach Examiner’s arguments regarding the teachings of Mizutani. Applicants respectfully submit that Mizutani does not cure the deficiencies in the teachings of Ono with regards to the elements of the independent claims 1 and 10 as discussed above, and that accordingly claims 1

and 10, and claims 3, 5, 14-17, 23, 24, 27, 28, 31, and 32, are each allowable over Ono and Mizutani.

Applicants believe the foregoing amendments and remarks place the application in condition for allowance and early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. § 1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. *A duplicate copy of this sheet is enclosed.*

Respectfully submitted,

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Respectfully submitted,

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